

REMARKS

Favorable reconsideration and allowance of this application are requested.

By way of the amendment instructions above, the independent claims have been revised so as to clarify that the method *consists of* the recited sequential steps. As such, all claims now clearly **exclude** from their coverage washing between steps.¹

Claims 23-24 and 30-31 have been canceled as being redundant in view of the expressions existing in independent claim 21.

Thus, amended versions of claims 21-22, 25, 27-29, 32-35 and 37-41 remain pending herein for which favorable reconsideration and allowance are solicited.

Claims 21, 27-28, 30-34 and 39 attracted a further rejection alternatively under 35 USC §102(b) or 35 USC §103(a) as anticipated by or rendered obvious from, respectively, WO 91/05909. The Vuorinen et al or WO 96/12063 references were combined with the WO '909 reference to reject claims 22-24, 35 and 37 as "obvious" under 35 USC §103(a). Claim 25 attracted a separated rejection for the reasons advanced against claim 24 and further in view of Hinstead et al. Claim 29 attracted a separate rejection under 35 USC §103(a) as allegedly obvious over the combination of WO '909 and Devenyns. Claim 38 was separately rejected as allegedly obvious over the references applied to claim 35 and further in view of Carles et al. And finally, claims 33, 40 and 41 attracted a rejection on the basis of the references cited against claim 38 and further in view of Hinstead.

The Examiner has asserted on page 3, lines 4-7 that even if the WO '909 publication "...does not teach without washing and without extraction, the term "consisting essentially of" is open to non-material steps. These steps have not been

shown to be material." Of course, as noted above, the independent claims have been revised so as to clarify that the method *consists of* the recited sequential steps. As will become evident from the following discussion, therefore, the WO '909 publication is inappropriate as a reference against the claims now pending herein.

As applicant has noted during prosecution to date, the WO '900 publication discloses following steps:

- * adding chlorine dioxide to a wood pulp suspension and subjecting the pulp suspension to a first treatment step for about 5 to 40 minutes so that the pH is between 6.0 and 7.5; and
- * acidifying the suspension and subjecting the mixture to a second treatment step for about 2 or more hours so that the pH at the end of the second step is between 1.9 and 4.2.

Thus, according to WO '909, there is first a chlorine dioxide step and then an acid step. The Examiner has now referred to claims 1, 5 and 6 of the WO '909 publication (page 22). In the process according to these claims chlorine dioxide is added in both steps. In order to advance such a rejection, the Examiner must have interpreted the pending independent claims so that steps b) and c) can be performed simultaneously. However, each of the independent claims pending herein require that the steps be practiced **sequentially**. And to further clarify this issue, claims 21, 35 and 39 have been further amended so that in step c) it is defined that it is the pulp **from step b)** that is bleached in the second D step. That is, the applicant's process consists of a short D step, a long acid step and a second D step.

While it is true that WO '909 does not explicitly disclose washings between the D and acid steps (page 8, l. 23+) or that two D steps are claimed (e.g., claims 1, 5 and 6

¹ Since the claims now recite that the method *consists of* the recited sequential steps, reference

on page 22). However, applicant has referred to the handbook "Pulp Bleaching", because the Examiner argued in the office action of February 5, 2003, that the WO '909 publication teaches using sequences which include a second D stage (page 2, lines 2-4, and page 3, line 2-3 of the above-mentioned office action) which would make the applicant's invention obvious.² However, Tables 1-3 relate to the ***conventional*** sequence (CD) E DED which has been modified so that the first D stage is replaced with the D stage according to WO '909 (see page 8, I.23-). Thus the whole sequence is (CD)-wash- E- wash - D - wash- E-wash-D. This fact is clearly evident from the handbook "Pulp Bleaching" handbook at page 17, left column, where it is described that the ***conventional*** (CD)EDED typically ***includes washing before and after an E stage***. Also on page 10, of the WO '909 document it is disclosed that distilled water has used in pulp washing in a bleaching experiment. In any case, it would not be obvious at all to place an acid treatment between the first and second D stages, as the Examiner claims on page 3 of the above-mentioned office action.

Thus, in view of the amendments and remarks submitted herewith, it should now be evident that the WO '909 publication cannot anticipate or render obvious the presently claimed invention.

Since the secondary references of record used in the Examiner's rejections of the dependent claims do not cure the deficiencies of the WO '909 reference noted above. As such, all dependent claims pending herein are patentable for the same reasons noted above and during previous prosecution.

to no washing between steps has been deleted from the claims as redundant language.

² For the Examiner's convenience, a further copy of the "Pulp Bleaching" handbook is attached and noted on a form PTO-1449.

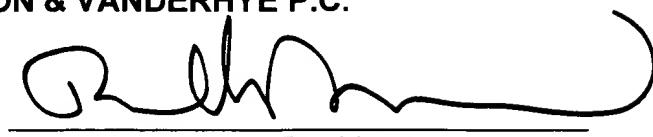
VUORINEN et al
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Early receipt of the Official Allowance Notice is solicited.

Respectfully submitted,

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